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**United States Patent** [19][11] **Patent Number:** **5,601,452****Ruffa**[45] **Date of Patent:** **Feb. 11, 1997**[54] **NON-ARCING CLAMP FOR AUTOMOTIVE BATTERY JUMPER CABLES**[75] Inventor: **Anthony A. Ruffa**, Niantic, Conn.[73] Assignee: **The United States of America as represented by the Secretary of the Navy**, Washington, D.C.[21] Appl. No.: **538,266**[22] Filed: **Oct. 3, 1995**[51] Int. Cl.<sup>6</sup> ..... **H01R 11/22**[52] U.S. Cl. .... **439/504; 439/506**[58] Field of Search ..... 439/504, 506,  
439/759, 822; 320/2, 25, 26[56] **References Cited****U.S. PATENT DOCUMENTS**

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An automotive battery jumper cable includes an electrically conductive cable which is terminated at each end by a terminal clamp. Each of the terminal clamps includes a pair of gripping members each having a jaw end and a handle end. The gripping members are pivotably connected to each other about an axis between the jaw ends and the handle ends. A torsion spring is mounted on the gripping members for normally urging the jaw ends toward each other. Each of the jaw ends of the gripping members is provided with a copper jaw member for engaging and grasping the battery terminal. One of the jaws on each clamp is not electrically connected to the cable. However, the other jaw of each clamp is electrically connected to the respective end of the cable via an encapsulated pressure switch. The pressure switch is physically positioned between the copper jaw and the jaw end of the gripping member such that spring pressure provided by the torsion spring is operative for closing the pressure switch when the clamp is mounted on a battery terminal. An in-line fuse can be mounted in the cable to prevent short circuits of the batteries.

**4 Claims, 2 Drawing Sheets**